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CLH
CHEMICAL LAND HOLDINGS, INC.

February 16, 2001

U.S. Environmental Protection Agency, Region II
Emergency and Remedial Response Division
290 Broadway, 19th Floor, Room W-20
New York, NY 10007-1866

Attention: Ms. Janet Conetta
Strategic Integration Manager

Subject: Response to January 30, 2001 EPA Letter
Re. Schedule for Further Activities
Passaic River Study Area
Administrative Order on Consent Index No. II-CERCLA-0117

Dear Ms. Conetta:

CLH is providing this response to the above-referenced letter, received on January 31, 2001.

CLH continues to be committed to performing the project components in a timely manner and to meeting defined project milestones, as has been demonstrated by its performance since the inception of this project. To date, CLH has met every project milestone, as detailed in a letter from CLH's outside counsel, Ms. Carol Dinkins, to Ms. Patricia Hick of EPA Region 2's Office of Regional Counsel (June 16, 2000).

Your letter at the outset observes that "To EPA, the overarching issue regarding all of these tasks is scheduling and time frames for completion." CLH recognizes and appreciates EPA's attention to schedule and it has worked diligently to complete tasks within reasonable timeframes. CLH does not in any way retreat from this commitment, which it has honored since execution of the Administrative Order on Consent (AOC). However, because the objective of the AOC is the conduct of a Remedial Investigation/Feasibility Study (RI/FS) "properly and promptly" in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and all other appropriate regulations, CLH has raised issues, as warranted, to assure this result, which it will continue to do.

The issues of verification of the STUDH 2000 beta model, the need for surface water chemistry data to incorporate into the risk assessment, and the time-consuming activity necessary to precede treatability studies if any ever are necessary – all subjects of your letter – were each raised by CLH to assure a proper and prompt RI/FS. CLH is prepared for and desirous of continuing to work on each of them at this time to minimize the potential for further delays in the future. To that end, we request to meet with the Agency, either separately on each topic or

together on the three, so that we can devise a mutually-agreeable plan to continue with this requisite RI/FS work.

CLH's understanding of the directives in EPA's letter is summarized below, together with additional comments, as appropriate. As an initial matter, however, we are uncertain of EPA's intent in this letter. For example, the first paragraph speaks of "deferring" some action, but the last paragraph of the letter "directs" CLH to "terminate several other activities..." We do not generally regard deferral and termination as the same course of action. We cannot terminate this work because CLH is required to perform it by the Administrative Order on Consent (AOC). We prefer not to defer this work because of the potential impact this could have on the schedule.

Programs to Continue or Reinstate

1. Combined Sewer Overflow (CSO) Sampling – continue working to resolve technical issues and proceed as agreed during our meeting on February 6, 2001.
2. Creel/Angler Survey – EPA acknowledges improvements in the Work Plan and will consider the survey report as part of the risk assessment, subject to several conditions.

Programs EPA Says to Cease or Suspend

1. Sediment Transport Modeling – because it recognizes that resolution of modeling issues "may take some time based on our previous experience," EPA did not set a schedule for completion of modeling, but directed that work cease until further notice by EPA.
2. Risk Assessment/Surface Water Sampling – Given that CLH has raised issues about the "lack of surface water data impacting its ability to complete one pathway analysis," EPA recommends that CLH suspend work until EPA provides further notice.
3. Treatability Studies – EPA directed that "treatability activities" cease until EPA provides further notice.

CLH concurs with EPA's suggestion that with fewer issues to resolve between CLH and EPA, the "focus of attention" will be narrower, thus allowing each issue to be resolved and the task completed. However, each of these items listed above is integral to the preparation of the RI/FS and suspension of them will certainly affect the overall project schedule.

Combined Sewer Overflow (CSO) Sampling

On February 6, 2001 CLH met with representatives of EPA, NJDEP, Passaic Valley Sewage Commissioners (PVSC), and consultants to PVSC – Malcolm Pirnie, Killam Associates, and Great Lakes Environmental Center (GLEC). Details of the meeting will be set forth in the Meeting Notes being prepared by CLH, but the major action items from the meeting pertinent to this discussion are:

- EPA will provide CLH with sampling, analytical, and validation protocols from the HEP/CARP program, that may be applicable to the CSO sampling program.
- CLH will consider using the HEP/CARP analytical procedures and validation protocols if they can be demonstrated to be consistent with the data requirements of the Passaic River Study Area RI/FS, but EPA Region 2 Emergency and Remedial Response Division will need to approve any new documentation.
- At the suggestion of PVSC, CLH may further refine its sampling activities based on initial attempts to sample each of the 30 CSOs. CLH may redirect its sampling and analytical effort towards those CSOs that are most likely to overflow and are most likely to contain contaminants (e.g., from industrial drainage areas). PVSC will provide the information to facilitate these modifications.

These items require the cooperation of PVSC and PVSC's consultants, technical reviews by NJDEP and EPA staff, and management reviews and determinations for the administrative record by EPA. Further, if substantial changes are adopted, CLH must prepare a revised Work Plan and QAPP, possibly audit or re-audit laboratories, and develop a new sampling implementation plan.

While CLH is cautiously optimistic regarding the applicability of these methods to the Passaic River RI/FS, the steps listed above will require additional time to evaluate the methods, develop the appropriate Work Plans and QAPP according to NCP requirements, and implement applicable modifications according to CERCLA program requirements. Therefore, it will not be possible to "...simply add amendments to [the CSO Work Plan] based on the results of our February 6 meeting." It was recognized at the meeting that this period of evaluation and development of revised project documents will delay the start of the program. This will not be an undue delay, and these data are essential for preparation of a thorough and complete RI/FS.

Creel/Angler Survey

CLH appreciates EPA's acknowledgement of improvements to the Creel/Angler Survey Work Plan and its decision to consider in the risk assessment the report that will be developed under this most important program. CLH will review and respond to EPA's and NJDEP's comments as soon as they are received.

In response to EPA's observation that "the most recently revised Creel/Angler Survey Work Plan still does not meet all of EPA's concerns," CLH respectfully requests that EPA list each item of continuing concern so that CLH can address each of them. CLH has sought to demonstrate in various documents and presentations to the Agency how the current plan is either responsive to the Agency's comments, or that those comments were already addressed within the Work Plan. Specific comments will assure that we can address each of EPA's outstanding concerns.

In addition, CLH again requests that EPA provide the data and report by Drs. Kirk Pflugh and Berger and that it clarify the citation to the New Jersey Household Survey. CLH has made these requests numerous times during meetings and in writing.

On February 2, 2001 CLH provided the information requested by the Agency regarding establishing an oversight program for the creel/angler survey, including a list of remaining tasks and schedules. This was accomplished by e-mail to ensure the most immediate possible response so arrangements can be made for EPA to oversee the field activities.

Outstanding RI/FS Tasks

Although we believe that CSO sampling and the creel angler survey are also outstanding tasks for the RI/FS, we are following the organization of your letter for ease of reference.

Sediment Transport Model

CLH respectfully disagrees with EPA's characterization of the STUDH 2000 beta model's lack of mass conservation as an "enigma." There is no ambiguity. The model does not conserve sediment mass, which is a fundamental error in the model, as described in reasonable detail to WES by CLH's modeling consultant, and supported by Dr. Ray Krone, to expedite development of the code to fix the error. In subsequent conversations with personnel at WES, CLH was informed that WES responded to CLH's written comments in a document submitted to the Agency. CLH has not seen and so now requests a copy of this document.

Further, the specific modifications to the previous version of the model were not "agreed to between EPA and CLH." CLH identified an error in the bed accounting algorithm, demonstrated this error to EPA and to WES, and documented the error in the Model Code Verification Report submitted in October 1996. CLH received the corrected model code from EPA in May 2000. CLH identified this latest error related to mass conservation while conducting the Test Protocol (submitted to EPA on April 30, 1999) for the new model prior to CLH's resumption of the formal verification process.

Lastly, EPA states, "Based on CLH's October 31, 2000 letter, it appears that CLH has concluded that the model code requires additional adaptations for use on the consultant's hardware." CLH made no suggestion that there is an issue with the hardware. The Madora test case was designed by WES to ensure that consistent results are achieved when the model is run on different platforms. When CLH conducted the Madora test case in 1995, the results showed that comparable results were achieved. This is documented in the Model Code Test Case report submitted on August 3, 1995. Again, there appears to be a flaw in the model code that WES must fix.

CLH stands ready to assist EPA and/or WES in resolving this issue by working with WES in their efforts to fix the model's code, a task that CLH believes to be easily accomplished. As directed, CLH will conduct no further work on sediment transport modeling activities until notified by EPA, but this delay in this component is unwarranted, given CLH's offer to assist in fixing the code. The AOC specifically requires that CLH conduct sediment transport modeling, and it will do so upon verification of the model.

Risk Assessment

EPA observes that the first interim deliverable for the human health risk assessment can only be used as a "working draft" since validated data from the ESP were not incorporated. The first draft interim deliverables for the human health and ecological risk assessments do not depend upon the project analytical data. Subsequent deliverables incorporate the data and will contain the interpretation of the data set. CLH submitted these initial documents for Agency review in its effort to comply with the Agency's request to begin submitting each of four interim deliverables for the human health risk assessment, and two interim deliverables for the ecological risk assessment (reference the risk assessment kickoff meeting on July 19, 2000).

Historically, it has been EPA's position that CLH should not collect surface water data. However, in July 2000, EPA's risk assessors directed CLH to evaluate the human health risk pathway from water. In addition, surface water chemistry data are required to develop the ecological risk assessment. CLH noted the data gap and proposed a program for collecting these data that would have had little or no impact on the overall project schedule. CLH believes it can promptly prepare an acceptable work plan and requests a meeting to discuss its parameters.

CLH urges the Agency to respond soon on conducting water sampling so that CLH can develop the appropriate plan and begin sampling upon EPA's approval of that plan. CLH estimated that, with Agency cooperation, the plan could be developed, approved, and sampling begun for a winter 2000/2001 sampling event. However, that suggestion was offered in a letter to EPA on October 19, 2000, to which CLH has had no response.

If EPA will work with us, CLH is prepared to develop the appropriate plans in an expedited manner, and to seek to collect surface water data as soon as practical.

Treatability Studies

Over the recent months, CLH undertook to meet with treatment technology vendors because of EPA's previously stated desire to advance the project schedule and because based on our experience, this is a time-consuming process. By letter of December 17,

1999, EPA directed us to meet with Weston BioGenesis, which CLH did on August 30, 2000; this demonstrates that this necessary prelude to treatability studies, if any, is time-consuming. CLH continued under this directive, collecting a sample for BioGenesis to evaluate for treatment (submitted to BioGenesis on September 27, 2000). In addition, CLH met with ENDESCO on November 14, 2000, another of the technology vendors who is more advanced in the WRDA demonstration program. Finally, in anticipation of the need to evaluate an *in situ* treatment technology, we have been working with Weiss Associates towards establishing a test of their *in situ* ElectroChemicalGeoOxidation system.

CLH selected the two vendors showing the most promise for successfully treating Passaic River sediments based on their performance under the WRDA decontamination demonstration programs sponsored by EPA and NJ Department of Maritime Resources (NJMR). We agree with your statement that these vendors are not required to meet treatment criteria analogous to those that would be required for the more highly contaminated Passaic River Study Area sediments. And it is for this reason that it is so important for CLH to understand their performance to-date, and to discuss vendor capabilities for bench- or laboratory-scale testing on the appropriate sediments in order to quickly respond if EPA were to direct that treatability tests be performed.

At the same time, CLH is compiling the "universe" of treatment alternatives, and in addition to researching the WEB site provided by Ms. Jaffess, has compiled reports from the literature and solicited responses from the 200+ vendors listed on EPA Region 2's WEB site. CLH provided a checklist to these vendors seeking complete information packages. We are compiling the results of that effort.

CLH will continue working to develop information on treatment technologies for the primary vendor candidates.

CLH requests a meeting with EPA to further discuss this issue. Given the considerable differences between Passaic River Study Area sediments and those currently being evaluated for treatment, it is imperative that the performance of treatment technologies under consideration be evaluated on Passaic River Study Area sediments to predict whether, in fact, any selection made in the RI/FS can truly be anticipated achievable. Accordingly, the program to conduct this evaluation must be continued.

Summary and Conclusion

- CLH will continue to conduct the Creel/Angler Survey and will look forward to receiving specific comments from EPA on the revised Work Plan.
- CLH will continue to prepare to conduct CSO sampling, and will coordinate closely with Ms. Sharon Jaffess of your office regarding the particular sampling and analysis procedures.
- CLH continues to be available to assist WES and EPA in any efforts to fix the STUDH 2000 beta model code and we request a meeting to move the modeling task forward.
- CLH stands ready to work with the Agency to develop and implement a surface water sampling program to support the human and ecological risk assessments.
- CLH requests a meeting with EPA to discuss the treatability testing program.
- CLH expects to submit by the middle of March the location information and revised data summaries from the recently completed ESP field program.

If you or anyone else on your staff requires more detailed information regarding any of the responses/issues in this letter, please contact me to discuss.

Please include this letter in the formal administrative record for the Diamond Alkali Superfund Site Operable Unit II.

Sincerely,

Clifford Firstenberg
Project Manager
On behalf of Occidental Chemical Corporation
(as successor to Diamond Shamrock Chemicals Company)

(2 copies sent)

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